

Name: _____

Score: _____

Solving Quadratic Equations Worksheet

Solve each equation using the quadratic formula.

① $12g^2 + 7g + 1 = 0$

② $25p^2 - 30p - 11 = 0$

③ $3x^2 + 7 = 0$

④ $x^2 - 3x + 4 = 0$

⑤ $6r^2 - 5r - 4 = 7$

⑥ $4x^2 + 11x - 20 = 0$

⑦ $-h^2 - 4h + 5 = 0$

⑧ $7x^2 - 2x - 7 = 0$

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Answers

① $12g^2 + 7g + 1 = 0$

$$\left\{ -\frac{1}{3}, -\frac{1}{4} \right\}$$

② $25p^2 - 30p - 11 = 0$

$$\left\{ \frac{3 + 2\sqrt{5}}{5}, \frac{3 - 2\sqrt{5}}{5} \right\}$$

③ $3x^2 + 7 = 0$

$$\left\{ \frac{i\sqrt{21}}{3}, \frac{-i\sqrt{21}}{3} \right\}$$

④ $x^2 - 3x + 4 = 0$

$$\left\{ \frac{3 + i\sqrt{7}}{2}, \frac{3 - i\sqrt{7}}{2} \right\}$$

⑤ $6r^2 - 5r - 4 = 7$

$$\left\{ \frac{11}{6}, -1 \right\}$$

⑥ $4x^2 + 11x - 20 = 0$

$$\left\{ \frac{5}{4}, -4 \right\}$$

⑦ $-h^2 - 4h + 5 = 0$

$$\{-5, 1\}$$

⑧ $7x^2 - 2x - 7 = 0$

$$\left\{ \frac{1}{7} + \frac{5\sqrt{2}}{7}, \frac{1}{7} - \frac{5\sqrt{2}}{7} \right\}$$
